

1. Describe the practice proposed for recognition, and list its objectives. Detail how the practice is innovative, how it promotes high student achievement, and how it can be replicated.

Visualize a five foot tall tree covered with green leaves and Beanie Baby animals, birds, and insects spaced all around the branches and at the tree base. In addition, add research reports typed on the computer about each living thing that is displayed. What you see is "What A Tree!" created and developed by the first grade students who worked to design and produce it.

This thematic study was developed to provide students with many reading and writing experiences as they completed research studies about a tree and what can live in or around the ecosystem of a tree. There was an added dimension as students were also involved in partner and small group work.

Objectives:

Upon completion of this thematic study, the students will demonstrate the ability to:

- 1 work cooperatively in small groups.
- 2 read fictional and non-fictional materials about trees and things that live in trees.
- 3 write reports about specific animals, birds, and/or insects.
- 4 use the computer to make final copies of research facts.
- 5 solve mathematical problems by measuring trees.
- 6 illustrate each report accurately using research sources.
- 7 work as a class collectively and in small groups to draw, paint, and create a tree.
- 8 write creatively about trees.
- 9 develop an understanding of the environment and the interdependence of living things.
- 10 discover and explore the qualities of a tree.
- 11 share information with family, friends, and other students in a program celebrating the tree.

This tree was constructed by drawing two identical tree trunks with branches on thick cardboard (5 feet tall and 3 feet wide at widest branches); each piece was painted brown on both sides; the tree trunks with branches were cut out; one slit was cut in each (bottom up to the middle in one and top down to the middle in the other); and both pieces were fitted together with slot construction. The result was a free-standing tree. Students made leaves for the tree, which were fastened on the tree frame with post-it glue.

Much time was spent working with a partner to complete research reports on what can live in and around a tree. A list of information that we wanted to find for each living thing was used as a guideline for this. The teacher edited the written reports with the students, and then students typed final copies on the computer. Beanie Babies, owned by the students, were added to the display; and reports were hung on the tree.

This thematic study offered students an opportunity to become actively engaged in research, inquiry, cooperative learning, reading, writing, and a final program presentation. Students became immersed in the world around them as they become familiar with a tree and how it looks, feels, sounds, and smells. They discovered that leaves make food for trees, barks protects it, and roots bring water to the tree. First graders became aware that animals of all sizes, from tiny insects to families of black bears, depend on trees for homes. As a focus for classroom activities, the theme of the tree was connected and aligned to the curriculum with activities in language arts and literacy, math, art, computer technology, and science. Many of these activities encouraged cooperative learning as well as providing reading and writing activities. Main areas of focus in the classroom were working together to investigate and explore a tree, reading and recording research facts about a tree and what can live in and around a tree, and the actual construction of a tree.

The end result was the culmination of twenty students working together in order to complete a very unique project. Students demonstrating variant ability levels were actively involved in working to complete this project. They were exceedingly proud of the final result.

2. Describe the educational needs of students that the practice addresses and how they were identified. List the *Core Curriculum Content* and *Cross-Content and Workplace Readiness Standards* addressed by the practice and describe how the practice addresses the standard(s).

Students involved in this project were first grade children. There were twenty students in a self-contained class. A wide range of learning abilities was evidenced in the group. The concept of paired research work was very positive for all the students. Students in first grade are emerging learners. This practice or project addresses their need to access literacy by engaging them in reading, writing, listening, and speaking activities as they work individually and as a class to complete a research study about a tree and what can live on, in, and around a tree.

The following Standards were addressed as this project evolved and was completed:

Cross-Content Workplace Readiness Standards

Standard 2 All students will use information, technology, and other tools.

Standard 3 All students will use critical thinking, decision-making, and problem-solving skills.

Standard 4 All students will demonstrate self-management skills.

Core Curriculum Standards

Language Arts Literacy

Standard 3.3 All students will write in clear, concise, organized language that varies in content and form for different audiences and purposes.

Standard 3.4 All students will read a variety of materials and texts with comprehension and critical analysis.

Mathematics

Standard 4.9 All students will develop an understanding of and will use measurement to describe and analyze phenomena.

Science

Standard 5.2 All students will develop problem-solving, decision-making, and inquiry skills, reflected by formulating usable questions and hypotheses, planning experiments, conducting systematic observations, interpreting data, drawing conclusions, and communicating results.

Standard 5.6 All students will gain an understanding of the structure, characteristics, and the basic needs of organisms.

Standard 5.12 All students will gain an understanding of the environment as a system of interdependent components affected by human activity and natural phenomena.

Visual and Performing Arts

Standard 1.3 All students will utilize art elements and art media to produce artistic products and performances.

As students read nonfiction and fiction materials about their chosen topics, they were actively involved in research skills. Computers were used to make final copies of reports to share with the class. This theme study was designed to provide many reading and writing experiences as research studies were completed. Students gained factual information, shared it with others, and put effective and positive effort into all parts of "What A Tree". There was an additional focus on working together in groups of two, three, and four as students were encouraged to work together to accomplish a common goal.

3. Document the assessment measures used to determine the extent to which the objectives of the practice have been met.

Evaluation of student's progress may be accomplished using several areas of focus:

1. Research selections written by the students may be evaluated for content, language, and accuracy.
2. Word Searches may be created using a blank grid. Students may select ten important words from their research report and list them on the top of the page. Then they fill in the boxes of the blank grid with these ten words. Other letters are used to fill in the remaining boxes of the grid. Puzzles may be copied for each student in the class to solve.
3. Each student will receive copies of classmates' research reports. They will have these to read and also to illustrate. It will be necessary for them to use the research books from the library to draw a picture of each specific living thing. The completed set of papers will include all the reports that the students wrote with illustrations. To further stress concepts, as a class we went through the pages of completed text and illustrations and highlighted important words. Words such as mammal, insect, ruminant, colony, hibernate, echo-location, nest, nectar, web, climb, reptile, nest, sting, marsupial, fruit, seed, acorn, invertebrate, claws, colonies, predators, queen, and pest were high-lighted.
4. Depending upon the living things selected for research reporting, the teacher may create open-ended questions and ask the students to respond in written answers. For example:
 - *Name three mammals that live in a tree. Tell one fact (or more) about each one.
 - *Select one animal that lives in or around a tree and write three things about it.
 - *Select five high-lighted words from the research reports and tell what each one means.
 - *Write two tree facts and illustrate each one.
 - *Write two reasons trees are necessary for people.
 - *List as many living things as you can that live in, on, or near a tree.
 - *Write down one way you used a tree product yesterday.

The questions may be geared to the ability level of the group. The students may or may not be permitted to use their copies of the individual reports while answering the questions.

5. Teacher observation of students participating in small and large group activities would be essential to this evaluation process.
6. When the tree was all completed, with leaves, animals, insects, and research reports hanging from it, we invited parents to see and hear the tree story. Our program had several parts:
 - *Each student memorized a tree fact that was shared with the audience. Each fact was only one sentence long, i.e. "Tree bark helps to protect the tree."
 - *Each pair of students read their research report.
 - *Students sang two songs: the first was an original creation of the class, and the second was a song illustrated by many hand motions taught to us by the music teacher.
 - *The last parts of our program included a series of questions about tree use. Each student read one question, parents raised their hands if the answer was yes, and a tabulation of tree use was compiled, i.e. "Who read a newspaper this morning?"
 - *Refreshments for our tree story party were apples, oranges, bananas, and pears. These fruits were chosen because they all grow on trees.